

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application.

1. (original) An isolated polynucleotide sequence comprising SEQ ID NO:1 or SEQ ID NO:3.
2. (original) The isolated polynucleotide of Claim 1, which encodes a fertility associated antigen.
3. (original) A vector comprising the isolated polynucleotide of Claim 1.
4. (original) The vector of Claim 3, wherein said vector is a prokaryotic expression vector, wherein the vector comprises a bacterial T7 promoter.
5. (original) A host cell comprising the isolated polynucleotide of Claim 1.
6. (original) The host cell of Claim 5, which is a bacterial cell, a yeast cell or a mammalian cell.

7. (Currently Amended) An isolated polynucleotide, which hybridizes under stringent conditions to ~~the isolated polynucleotide of Claim 1~~ the complement of SEQ ID NO:1 or SEQ ID NO:3 and which encodes a fertility associated antigen, wherein said stringent conditions comprise hybridization in 50% formamide, 1 M NaCl, 1% SDS at 37°C and a wash in 0.1 X SSC at 60°C to 65°C.

Claim 8 (Cancelled).

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9. (Currently Amended) A method of producing a fertility associated antigen comprising introducing the isolated polynucleotide of Claim 1 ~~an isolated polynucleotide encoding fertility associated antigen~~ into a host cell; culturing said host cell under

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conditions suitable for expression of fertility associated antigen; and isolating the fertility associated antigen produced.

Claim 10. (cancelled)

11. (original) The method of Claim 9, wherein said isolating comprises purifying said fertility associated antigen.

12. original) The method of Claim 11, wherein said purifying comprises chromatography and/or affinity separation.

12. (original) The method of Claim 9, wherein said host cell is a bacterial cell.

14. (original) The method of Claim 9, wherein said host cell is yeast cell.

15. (original) The method of Claim 9, wherein said host cell is a mammalian cell.

Claims 16-56 (cancelled)

57. (New) The isolated polynucleotide of Claim 1, which comprises SEQ ID NO:1.

58. (New) The isolated polynucleotide of Claim 1, which comprises SEQ ID NO:3.

59. (New) The isolated polynucleotide of Claim 7, which hybridizes to the complement of SEQ ID NO:1.

60. (New) The isolated polynucleotide of Claim 7, which hybridizes to the complement of SEQ ID NO:3.

61. (New) A vector comprising the isolated polynucleotide of Claim 59.

62. (New) The vector of Claim 61, wherein said vector is a prokaryotic expression vector, wherein the vector comprises a bacterial T7 promoter

63. (New) A vector comprising the isolated polynucleotide of Claim 60.

64. (New) The vector of Claim 63, wherein said vector is a prokaryotic expression vector, wherein the vector comprises a bacterial T7 promoter.

65. (New) A host cell comprising the isolated polynucleotide of Claim 59.

66. (New) The host cell of Claim 65, which is a bacterial cell, a yeast cell or a mammalian cell.

67. (New) A method of producing a fertility associated antigen comprising introducing the isolated polynucleotide of Claim 59 into a host cell; culturing said host cell under conditions suitable for expression of fertility associated antigen; and isolating the fertility associated antigen produced.

68. (New) The method of Claim 67, wherein said isolating comprises purifying said fertility associated antigen.

69. (New) The method of Claim 68, wherein said purifying comprises chromatography and/or affinity separation.

70. (New) The method of Claim 67, wherein said host cell is a bacterial cell.

71. (New) The method of Claim 67, wherein said host cell is yeast cell.

72. (New) The method of Claim 67, wherein said host cell is a mammalian cell.

73. (New) A host cell comprising the isolated polynucleotide of Claim 60.

74. (New) The host cell of Claim 73, which is a bacterial cell, a yeast cell or a mammalian cell.

75. (New) A method of producing a fertility associated antigen comprising introducing the isolated polynucleotide of Claim 60 into a host cell; culturing said host cell under conditions suitable for expression of fertility associated antigen; and isolating the fertility associated antigen produced.

76. (New) The method of Claim 75, wherein said isolating comprises purifying said fertility associated antigen.

77. (New) The method of Claim 76, wherein said purifying comprises chromatography and/or affinity separation.

78. (New) The method of Claim 75, wherein said host cell is a bacterial cell.

79. (New) The method of Claim 75, wherein said host cell is yeast cell.

80. (New) The method of Claim 75, wherein said host cell is a mammalian cell.

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